UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/035,666	12/28/2001	Gaurav Banga	112056-0023	4620

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EXAMINER
NGUYEN, THAN VINH

ART UNIT	PAPER NUMBER
2187	7

DATE MAILED: 04/16/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *8/23/02, 5/6/03, 7/31/03*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-21* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-5,8-14,20 and 21* is/are rejected.

7)☒ Claim(s) *6,7 and 15-19* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 December 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4,5,6*.

4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

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Commissioner for Patents

DETAILED ACTION

1.   Claims 1-21 are pending.

2.   The IDSes, filed 8/23/02, 5/6/03, 7/31/03, have been considered.

Claim Rejections - 35 USC § 102

3.   The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the

basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

4.   Claims 1-5,8-12,20,21 are rejected under 35 U.S.C. 102(b) as being anticipated by Row

et al (US 5,802,366).

5.   As to claim 1, 11,20,21:

Row teaches a method/system/apparatus/medium for enabling a server configured with a

plurality of virtual servers to participate in a plurality of private network address spaces and

service requests within those address spaces, the method comprising the steps of: associating

each virtual server with an IPspace having one or more addresses assigned to one or more

network interfaces of the virtual server (Fig. 2, 1/45-2/7; 7/64-8/17); tagging each network

interface with a first IPspace identifier (ID) (10/10-17, Claim 10, 18); providing the virtual server

with one or more routing tables that control routing operations for requests processed by the

virtual server (9/50-63, 10/3; 11/31-39; and applying the first IPspace ID to translation

procedures that enable selection of a current virtual server context used to process an incoming

request and an appropriate routing table used to process an outgoing request. (5/50-57, 9/20-29)

6.   As to claim 2,12:

Row teaches the server is a filer and wherein the virtual server is a virtual filer (vfiler)

(7/64-8/17).

7.   As to claim 3,8:

Row teaches employing a path translation procedure. (5/50-57, 9/20-29).

8.   As to claims 4,5:

Row teaches the steps of: receiving the incoming request at the network interface, the

incoming request having a destination address; searching a list of addresses contained in an

interface network structure for an address that matches the destination address of the incoming

request, the interface network structure storing the first IPspace ID; and upon finding a match,

following a first pointer of the interface network structure to an interface address structure

having a back link pointer that references a vfiler context structure storing a second IPspace ID

(translate request address; 5/50-57; 9/20-29)

9.   As to claim 9,10:

Row teaches issuing the outgoing request from a vfiler; determining whether the request

requires route calculation; and if route calculation is required, using a routing table

pointer of the current vfiler context to choose the appropriate routing table of the vfiler to

process the outgoing request (11/30-35; 15/38-60).

10.   As to claim 13:

Row teaches the operating system is a storage operating system (4/16-34)

11.   As to claim 14:

Row teaches a memory adapted to maintain various data structures that cooperate to

provide an IPspace database that stores configuration information used to select the current vfiler

(memory array 16).

Allowable Subject Matter

12.   Claims 6,7,15-19 are objected to as being dependent upon a rejected base claim, but

would be allowable if rewritten in independent form including all of the limitations of the base

claim and any intervening claims.

13.   As to claim 6, the prior art of record does not teach or suggest wherein the step of

employing further comprises the step of **configuring a second pointer of a process block data**

structure to reference the current vfiler context to thereby qualify the request for

subsequent processing in the filer.

14.   Claim 7 is also allowable for incorporating the limitations of claim 6, and further

limitations.

15.   As to claim 15, the prior art does not teach wherein the combinations of the various data

structures comprise: an interface network (ifnet) structure associated with the network interface;

an interface address (ifaddr) structure coupled to the ifnet structure and representing the

address of the interface; a vfiler context structure coupled to the ifaddr structure; and a

process block (proc) structure coupled to the vfiler context structure.

16.   Claims 16-19 are also allowable for incorporating the limitations of claim 15, and further

limitations.

Conclusion

1.   Any inquiry concerning this communication or earlier communications from the

examiner should be directed to Than Nguyen whose telephone number is (703) 305-3866. The

examiner can normally be reached on M-F from 8:00 a.m. to 3:00 p.m. EST.

2.   Any inquiry of a general nature or relating to the status of this application should be

directed to the Group receptionist whose telephone number is (703) 305-9600.

3.   The fax phone number for Art Unit 2187 is 703-872-9306.

Than Nguyen

Primary Patent Examiner

April 16, 2004